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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/670,760	09/27/2000	Luis Felipe Cabrera	MSFT-0176/150795.1	6145
41505 7590 06/13/2007 WOODCOCK WASHBURN LLP (MICROSOFT CORPORATION) CIRA CENTRE, 12TH FLOOR 2929 ARCH STREET PHILADELPHIA, PA 19104-2891			EXAMINER THAI, HANH B	
			ART UNIT 2163	PAPER NUMBER
			MAIL DATE 06/13/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/670,760	CABRERA, LUIS FELIPE	
	Examiner	Art Unit	
	Hanh B. Thai	2163	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on amendment filed 11/2/06.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 and 25-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 and 25-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The following is Non-Final Office Action in response to amendment filed November 2, 2006 and the RCE filed March 5, 2007.

Response to Arguments

2. Applicant's arguments regarding "the cumulative backup file corresponding to a second time allowing for the restoration of the target object without the restoration of the set of objects" have been fully considered but they are not persuasive.

Zaremba clearly discloses differential or cumulative backup file allows for the restoration of the target object without the restoration of the set of objects (col.5, lines 40-46 and col.8, lines 35-44, Zaremba).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-2, 4-13, 15, 17-23, 25-30 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zaremba (U. S. Patent no. 6,647,399) of record and further view of Stevens (U. S. Patent no. 6,145,088) of record.

Regarding claims 1 and 15, Zaremba discloses a method for generating backup files in a computer system, comprising:

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- generating a full backup file corresponding to a first time for a set of objects in the computer system (abstract; col.2, lines 26-44 and col.4, lines 8-67, Zaremba);
- generating at least one incremental file for said set of object after the first time, wherein each of the incremental file(s) is associated with the set of objects (abstract; col.2, lines 21-27 and col.4, lines 47-65, Zaremba);
- identifying a target object within said set of object for the generation of cumulative backup files (abstract; col.2, lines 38-41 and col.5, lines 40-44, Zaremba); and
- generating at least one cumulative backup file corresponding to a second time, after the first time, for the target object (abstract; col.6, line 63-col. 7, line 21 and col.8, lines 32-44, Zaremba), wherein said at least one cumulative backup file corresponding to a second time allows for the restoration of the target object without the restoration of the set of objects (col.5, lines 40-46 and col.8, lines 35-44, Zaremba).

Zaremba, however, does not disclose that the backup file is performed off-line. Stevens discloses an apparatus for remote recovery including the backup file that can be performed off-line (see col. 1, lines 49-56, Stevens). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Zaremba. The motivation of doing so would have been to provide potentially relief for data loss (column 1, lines 49-56, Stevens).

Regarding claim 2, Zaremba/Stevens combination further discloses that the generating of the at least one cumulative backup file includes analyzing at least one incremental file generated

between the first and second time (abstract; col.5, lines 40-44; col. 7, lines 5- 21 and col.8, lines32-44, Zaremba).

Regarding claim 4, Zaremba/Stevens combination further discloses restoring the target object to the second time by processing the full backup file and the at least one cumulative backup file (col. 7, lines 5- 21 and col.8, lines32-44, Zaremba).

Regarding claim 5, Zaremba/Stevens combination discloses that the backup or restore the target object the second time after the first time (abstract; col.6, line 63-col. 7, line 21 and col.8, lines 32-44, Zaremba). Since the combination system can reconstruct the target objects the second time (see col. 2, lines 32-49, Zaremba). It is clearly operated to reconstruct the third time as well as many times thereafter.

Regarding claims 6-7, Zaremba/Stevens combination further discloses that the identifying includes identifying a related subset of files as the target object for a cumulative backup file (col.2, lines 38-41 and col.5, lines 40-44, Zaremba).

Regarding claim 8, Zaremba/Stevens combination further discloses the identifying includes identifying a directory as the target object for a cumulative backup file (abstract; col.2, lines 38-41 and col.5, lines 40-44, Zaremba).

Regarding claim 9, Zaremba/Stevens combination further discloses that a user identifies the target object (col.2, line 62-col. 3, line 5, Zaremba).

Regarding claim 10, Zaremba/Stevens combination further discloses the monitoring and analyzing restore operations in the computer system (col.2, lines 38-41 and col.5, lines 40-44, Zaremba).

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Regarding claim 11, Zaremba/Stevens combination further discloses the identifying of the target object is designed to meet a condition of bounded restore time for the target object (1, lines 15-32, Zaremba).

Regarding claim 12, Zaremba/Stevens combination further discloses controlling the frequency of generating at least one of a full, incremental and cumulative backup (abstract; col. 7, lines 5- 21 and col.8, lines32-44, Zaremba).

Regarding claim 13, Zaremba/Stevens combination further discloses a computer-readable medium having computer-executable instructions (col.3, lines 47-60, Zaremba).

Regarding claim 17, Zaremba/Stevens combination further discloses that the generating of said at least one cumulative backup file is performed off-line (see Fig. 2 and col. 1, lines 49-56, Stevens).

Regarding claim 18, Zaremba/Stevens combination further discloses the monitoring and analyzing restore operations (col. 2, lines 50-61, Zaremba).

Regarding claim 19, Zaremba/Stevens combination further discloses that the identifying of the target object is designed to meet a condition of bounded restore time (col. 2, lines 32-49, Zaremba).

Regarding claims 20-21, Zaremba/Stevens combination further the frequency of generating at least one of a full, incremental and cumulative backup (abstract; col. 7, lines 5- 21 and col.8, lines32-44, Zaremba).

Regarding claims 22 and 32, Zaremba discloses a computer system (Fig. 1) comprising:

- a plurality of servers having at least one connection to a communications network (see col. 3, line 46 to col. 4, line 7, Zaremba); and

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- a plurality of storage components for the storage of backup information for a plurality of target objects in the form of full, incremental and cumulative backup information, wherein the full and incremental backup information is associated with the collection of said plurality of target objects (see col. 1, lines 45-49; col. 2, lines 26-61; col.4, lines 4-67; col.5, line 13 to col. 6, line 11 and col.8, lines 32-46, Zaremba), further wherein said cumulative backup information allows for the restoration of the target object without the restoration of the set of objects (col.5, lines 40-46 and col.8, lines 35-44, Zaremba);

Zaremba does not disclose that the backup information wherein the backup can be performed off-line. Stevens discloses an apparatus for remote recovery including the backup file that can be performed off-line (see Fig. 2 and col. 1, lines 49-56, Stevens). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Zaremba to include the claim feature. The motivation of doing so would have been to provide potentially relief for data loss (col. 1, lines 49-56, Stevens).

Regarding claim 23, Zaremba/Stevens combination discloses wherein the target object is reconstructed by processing at least one cumulative backup file of the cumulative backup information associated with said target object and a full backup file associated with the collection of said plurality of target objects (see col. 2, lines 32-49, Zaremba).

Regarding claim 25, Zaremba/Stevens combination discloses wherein the plurality of storage components store backup information for the target object according to a user specification as to which subset of files comprises the target object (see col. 2, lines 31-33, Zaremba).

Regarding claim 26, Zaremba/Stevens combination discloses that the plurality of storage components store backup information for a volume (see col. 5, lines 4-9, Zaremba).

Regarding claim 27, Zaremba/Stevens combination discloses that the plurality of storage components store backup information for a directory (see col. 6, line 63 to col. 7, line 3, Zaremba).

Regarding claim 28, Zaremba/Stevens combination discloses that at least one of the plurality of servers generates the backup information in response to monitoring and analyzing an inefficiency of a system restore operation (see col. 6, lines 4-10, Zaremba).

Regarding claim 29, Zaremba/Stevens combination discloses a condition of bounded restore time for the plurality of target objects (see 1, lines 15-32, Zaremba).

Regarding claim 30, Zaremba/Stevens combination discloses the generation of a cumulative backup file includes the analysis of at least one incremental file of the incremental backup information generated for the plurality of target objects (see col. 1, lines 45-49 and col. 2, lines 26-61, Zaremba)

4. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zaremba (U. S. Patent no. 6,647,399) of record in view of Stevens (U. S. Patent no. 6,145,088) of record and further in view of Fletcher et al. (U. S. Patent no. 6,038,379) of record.

Regarding claim 14, Zaremba/Stevens discloses all of the claimed limitations as discussed above, except “the storage block mappings for the target object” and “the change is stored in the format of MTF”.

Fletcher discloses a data backup and restores system for computer network including the claimed feature (see col. 6, lines 10-19 and col. 8, lines 18-36, Fletcher). It would have been

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obvious to one of ordinary skill in the art at the time of the invention to modify the teaching of Zaremba and Stevens. The motivation of doing so would have been to enhance the full backup and recovery system, for example, the capability of interchanging data between different operating system (see col. 2, lines 14-19, Fletcher).

5. Claims 3, 16, 31 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zaremba (U. S. Patent no. 6,647,399) of record in view of Stevens (U. S. Patent no. 6,145,088) of record and further view of Pongracz et al. (U. S. Patent no. 6,073,128) of record.

Regarding claims 3, 16, 31 and 33, Zaremba/Stevens combination discloses all of the claimed limitations as discussed above, except that at least one incremental file is performed in reverse chronological order. Pongracz discloses a method for identifying files used to restore a file and is performed in reverse chronological order (see col.3, lines 45-49, Pongracz). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Zaremba/Stevens to include the claim feature as taught by Pongracz. The motivation of doing so would have been to provide a properly backup file system (see col.3, lines 36-39, Pongracz).

6. Claims 1, 15, 22 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zaremba (U. S. Patent no. 6,647,399) of record and further view of Tamer et al. (U. S. Patent no. 6,035,412).

Regarding claims 1 and 15, Zaremba discloses a method for generating backup files in a computer system, comprising:

- generating a full backup file corresponding to a first time for a set of objects in the computer system (abstract; col.2, lines 26-44 and col.4, lines 8-67, Zaremba);

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- generating at least one incremental file for said set of object after the first time, wherein each of the incremental file(s) is associated with the set of objects (abstract; col.2, lines 21-27 and col.4, lines 47-65, Zaremba);
- identifying a target object within said set of object for the generation of cumulative backup files (abstract; col.2, lines 38-41 and col.5, lines 40-44, Zaremba); and
- generating at least one cumulative backup file corresponding to a second time, after the first time, for the target object (abstract; col.6, line 63-col. 7, line 21 and col.8, lines 32-44, Zaremba), wherein said at least one cumulative backup file corresponding to a second time allows for the restoration of the target object without the restoration of the set of objects (col.5, lines 40-46 and col.8, lines 35-44, Zaremba).

Zaremba, however, does not disclose that the backup file is performed off-line. Tamer discloses RDF-based and MMF-based backups including that the file can be performed off-line and the restoration of the target object without the restoration of the set of objects (see col. 11, line 59 to col. 12, line 8, Tamer). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Zaremba. The motivation of doing so would have been to make fast partial and complete database restores possible (column 3, lines 38-40, Tamer).

Regarding claims 22 and 32, Zaremba discloses a computer system (Fig. 1) comprising:

- a plurality of servers having at least one connection to a communications network (see col. 3, line 46 to col. 4, line 7, Zaremba); and

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- a plurality of storage components for the storage of backup information for a plurality of target objects in the form of full, incremental and cumulative backup information, wherein the full and incremental backup information is associated with the collection of said plurality of target objects (see col. 1, lines 45-49; col. 2, lines 26-61; col.4, lines 4-67; col.5, line 13 to col. 6, line 11 and col.8, lines 32-46, Zaremba), further wherein said cumulative backup information allows for the restoration of the target object without the restoration of the set of objects (col.5, lines 40-46 and col.8, lines 35-44, Zaremba);

Zaremba, however, does not disclose that the backup file is performed off-line. Tamer discloses RDF-based and MMF-based backups including that the file can be performed off-line and the restoration of the target object without the restoration of the set of objects (see col. 11, line 59 to col. 12, line 8, Tamer). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Zaremba. The motivation of doing so would have been to make fast partial and complete database restores possible (column 3, lines 38-40, Tamer).

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh B. Thai whose telephone number is 571-272-4029. The examiner can normally be reached on Mon-Thur (7:00AM - 4:30 PM).

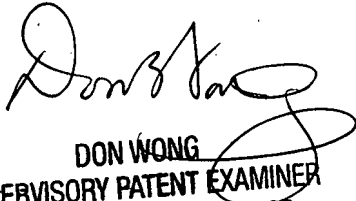
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on 571-272-1834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Hanh B Thai
Examiner
Art Unit 2163

June 6, 2007


DON WONG
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100